# ENVIRONMENTAL MONITOR

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## Gorbachev Leads Discussions at the 6th Annual Legacy Forum on Military Toxic Cleanup

By Mr. Bob Jarrett, AEPI Senior Fellow

Sharing concerns and successes was the tone at the Forum held 4-5 December '99 on the Georgia State University campus, Atlanta, Georgia. Global Green USA assembled a blue ribbon set of speakers to discuss military related contamination and its management. The Army Environmental Policy Institute co-sponsored this event. Underlying themes of environmental sustainability and benefits of synergistic partnership were illuminated by presentations in various areas:

- ***Sustainability:***
  ***Communities***
  ***Ecosystems***
  ***Efficient Use of Resources***
- ***Stakeholder Involvement in Remediating Toxic Legacies***
- ***Lessons from the Worldwide Green Cross Legacy Program:***
  ***Stakeholder Involvement and Public Health***
  ***Weapons of Mass Destruction***
  ***Unexploded Ordnance***
  ***The Cultural Legacy***

Special guest Mikhail Gorbachev, President and founder of Green Cross International, pleaded for world-wide sensitivity to the long and short term dangers of chemical contamination, chemical weapons, discarded conventional weapons (especially landmines) and nuclear weapons and materials. He spoke forcefully of the need for all societies to eliminate the intentional and accidental hazards by eliminating the weapons themselves. Mr. Gorbachev observed that each nuclear missile has the environmentally destructive potential of 100 Chernobyls.

This Forum brought over fifty international and domestic industrial, academic and non-governmental organizations as well as federal, state and local government representatives together. Topics ranged widely across philosophical, technical and culture change issues. Remarks covered all areas from pleas for more imagination in applying proven but non-traditional military cleanup and natural resource stewardship approaches to appreciation for advances achieved and mutual help rendered. All in all, the Forum searched for further cooperative ways to reduce the military "environmental footprint."

*(Continued on page 7)*


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*Mr. Gorbachev spoke forcefully of "the need for all societies to eliminate the intentional and accidental hazards by eliminating the weapons themselves."*

## Inside...

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| | | |
|---|---|---|
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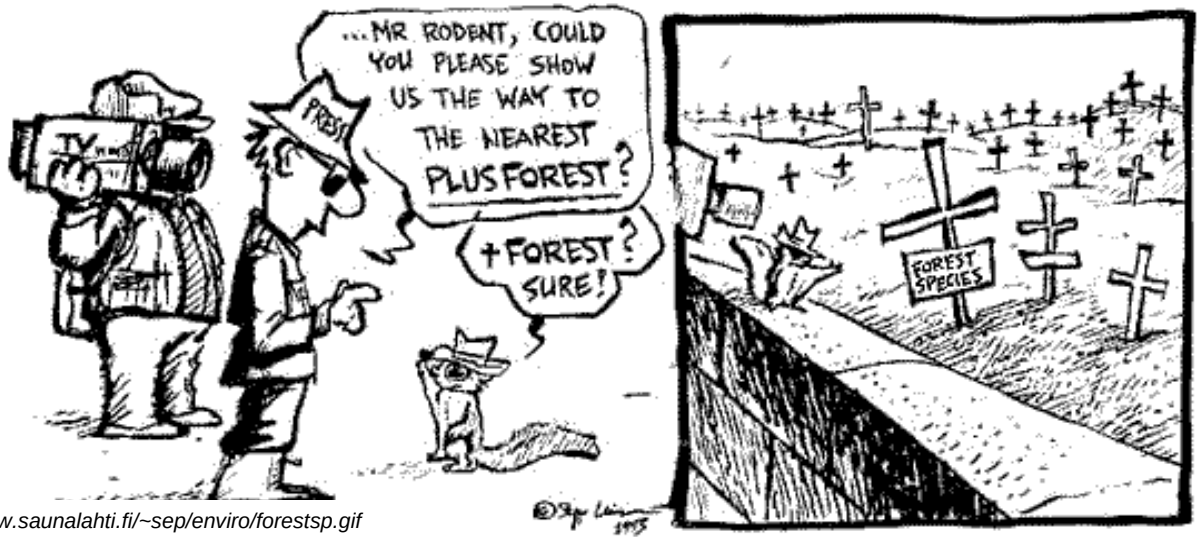


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# ENVIRONMENTAL MONITOR

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# "A REGIONAL PERSPECTIVE"

Being the newest member of the SREO staff, George Carellas asked that I share my perspective on some of our regional pollution prevention partnerships. Having come from the technology side of the house, I had not been exposed to the type of partnering that is occurring in this region, even though good partnering principles are the essence of successful management efforts. Anyway, I will try to give you some insight into why our office believes that partnering efforts like the one in Alabama are an important component to the Army's environmental program.

As in any relationship, it seems that the test of time will often define the strength of a group's commitment and ability to achieve a common goal. The Alabama P2 Partnership was approaching the one year anniversary point, and although we had spent the time defining who we were and what our overall goals should be, I had some concerns as to how well the team would continue to function over the long haul. Fortunately, though, I came away from the August 1999 meeting at Ft. Rucker even more excited and convinced that this partnership and others in our region were not just a group of people "meeting to meet".

For example, in his welcoming remarks, Colonel Kenneth Clow, Director for Public Works, said that "Fort Rucker can not train if it does not take care of the environment." He described a time in his career when the notion of partnering among DOD services, let alone the military and regulatory community, would have made no sense at all. However, looking around the room at representatives from EPA Region 4, the Alabama Department of Environmental Management (ADEM), Air Force and Army installations, and the Regional Environmental Offices, he said that he has since become a believer in partnering and its benefits to helping protect the environment. He concluded his remarks by commenting that "we can be honest with each other because of our relationships together".

It was at this meeting that I witnessed over and over again the value of the team's relationships. For example, when it became time for the Alabama Department of Environmental Management (ADEM) to conduct their regulatory "roadshow update" at the local civic center, they also thought to invite representatives from the Ft. Rucker environmental office. Ft. Rucker was provided with an opportunity to speak about environmental stewardship and how they were protecting the environment while accomplishing their military mission. In addition to making a very positive impression on the mayor and many other public officials, Ft. Rucker ultimately became the role model for how businesses in the county should prepare "point source discharge plans" prior to obtaining future building permits. This partnering effort helped fulfill one of the partnership's key goals, i.e. "to strengthen support for pollution prevention among leadership of the partners and the community at large".

Other benefits of the partnership were seen on the installation tour whereby new ideas, levels of enthusiasm, and lessons learned were shared one-on-one. Tracy Williams, environmental engineer from Anniston Army Depot, made comments several times about how good it was for her to witness operations at another installation's facility. These tours help accomplish other key goals of the partnership, i.e., to develop strong working relationships among the partners and to leverage resources.

It was also during the Ft. Rucker tour that I came away with a task to follow-up on the current status of a technology that the Army Environmental Center had been helping transfer to the field. The outstanding question was whether the hydraulic fluid recycling technology would be authorized for use on Army aviation equipment. After a few quick calls, however, I discovered that not only was it acceptable for use on aviation equipment, it had actually been approved by the Army CH-47 Helicopter Program Manager and was on its way towards becoming a new operational requirement. Because of the lengthy process in technology transfer, however, the word had not yet made its down to many of the field activities at Ft. Rucker. It turns out that this story is not only about a technology that protects the environment, but even more importantly about a technology that can saves lives, improves readiness, and saves a lot of money.

It turns out that the problem with hydraulic fluid and how this technology can save lives is that accumulated sludge in the CH-47 had recently been identified as a major cause of "lock-ups". There are clearances (like your blood capillaries) inside the hydraulic system that measure less than a few millionths of an inch. A lock-up is the situation whereby a helicopter freezes (like a stroke) in a particular axis of rotation and can not immediately correct itself. Fortunately, a lock-up is almost always self-corrected, but in the case of a recent lock-up, a $32 million CH-47 crashed before it was corrected. Thankfully, the pilot was not killed.

A hydraulic fluid recycler's primary benefit is in its ability to act as a dehydrator while removing moisture and dissolved air. In addition, it uses a micro-filter to remove particulates like barium, salt, and chlorine. Moisture removal is very important because it initiates a process of degradation whereby organic acids are formed, thus leading to the buildup of corrosion and sludge. Use of the recycler not only enhances operational performance and improves safety, but it also protects the environment by significantly reducing the amount of hydraulic fluid that is required for disposal. Previously, the best know method for reducing moisture and accumulated sludge was to repeatedly flush the hydraulic system with virgin hydraulic fluid. Now, the hydraulic fluid can be used indefinitely and only requires replacement on an as needed basis.

Because I was a member of the Alabama P2 partnership, I felt that I had been able to pass on some potentially valuable information to Ft. Rucker and help expedite the fielding of a new technology. This type of networking occurs throughout many of our other meetings and P2 activities, i.e., "to become an effective interagency partnership that elevates pollution prevention as THE way of doing business in the State of Alabama."

Ed Engbert
Army Regional Environmental Coordinator

# FEDERAL HEADLINES

## Defense Logistics Agency Announces Defense Distribution Depot Competition Results

For Immediate Release: February 4, 2000
Gerda Parr (703) 767-6182

The Defense Logistics Agency announced today that operations and management of its Defense Distribution Depot, Warner Robins, Ga., will be contracted out to EG&G Logistics, Manassas, Va. The tentative decision was made after a detailed study indicated it was more cost effective to convert to the private sector.

This announcement culminates more than a year of public-private competition using the guidelines of Office of Management and Budget Circular A-76, "Performance of Commercial Activities." The process establishes federal policy for deciding whether to retain recurring, commercial-like activities within the government, or contract them out to a private sector source. The guidance tells how to compare performance and cost related information to arrive at the best overall deal for the taxpayer.

"This is a highly competitive process and we are confident that these competitions will provide high quality support with significant cost savings to the warfighters in the years to come," said Rear Admiral Daniel H. Stone, commander of the DLA's Defense Logistics Support Command.

In March 1998, DLA announced that most of its distribution depots would undergo public/private competition. DDWG is the third of sixteen sites to complete the process. The first depot was the Defense Distribution Depot, Columbus, Ohio, Nov. 10, 1999, where operations and management remained in-house. The second was the Defense Distribution Depot, Barstow, Calif., Jan. 7, 2000, where the tentative decision was made to contract out the operations and management functions. The remaining depots are being competed in phases over a 5-year period ending in mid-2003.

DDWG's work force provides worldwide distribution support to all the U.S. Armed Forces and specific foreign military with parts and equipment for the F-15, C-130, C-5 and C-141 aircraft, target acquisition systems and most airborne electronic warfare systems. The depot's primary customers are the depot level maintenance activities at the Air Force's Warner Robins Air Logistics Center.

The Defense Distribution Depot Warner Robins is a field activity of the Defense Distribution Center, New Cumberland, Pa.

"The new millennium has truly brought change to this depot. While I believe we put forth the most competitive bid imaginable in support of a very complex and multifunctional distribution operation, a contractor was deemed more competitive. Our immediate goal now is to assist each and every employee in their endeavors to successfully transition into a new era of their lives. I'm proud to have served with such a great group of individuals who under many months of enormous pressure, continued to work hard at providing superior distribution support to our warfighters. As the mission of the depot will continue, we wish the contractor well in continuing the high quality support that is so much the spirit of this depot," said Colonel Joe Carter, USAF, DDWG Commander.

# DOD Revamping Pollution Prevention Strategy, Pushes Funding

Defense Environment Alert Dec. 14, 1999


Defense Department officials are developing a revamped pollution prevention strategy, dubbed Pollution Prevention 2000 or P2K, aimed at expanding and refocusing the current program to meet new and continuing challenges. In particular, the strategy, now in the form of a straw man proposal, aims to aggressively integrate pollution prevention into all DOD programs, and pushes funding policies that actively promote pollution prevention, said a DOD environment official at a recent military pollution prevention conference.

While DOD's pollution prevention programs, which stress pollution prevention as a way to meet compliance requirements, have been successful in lowering costs, DOD Deputy Assistant Secretary for Environmental Quality Bruce DeGrazia cautioned military environmental staff against resting on their laurels. "We need to coordinate our P2 strategy across the Department of Defense and not just look at it as something that's directed from Washington," he said. In part, that means revising DOD's pollution prevention instruction and budget guidance to ensure that the pollution prevention program is sufficiently funded and is the first approach to compliance, he said.

DeGrazia stressed the need to go outside the traditional environmental programs to promote pollution prevention. The greatest opportunities for pollution prevention investments are in other programs, such as acquisition, maintenance, operations and purchasing, he said.

Noting a study on a paint/depaint activity that showed environmental and other costs primarily being paid for by the logistics office, Tad McCall said, "when we see a return on investment, it's not going to come back to our little puny environmental line, ... the benefit is to the entire Air Force." The benefits will be to sustainment, operations, infrastructure and other programs, he said.

DeGrazia pointed to a study of 20 pollution prevention projects by the DOD Inspector General that found a six-to-one return on investment. DOD has also found that most projects showed their strongest return on investment in non-environmental quality budgets, he said. "These savings show up not only in cleanup, but also in procurement, logistics and maintenance budgets and directly affect and benefit readiness," he said.

DeGrazia outlined six goals DOD hopes to make part of its new P2K plan in order to meet these new and continuing challenges. These orders address such areas as affirmative procurement, waste prevention, energy efficiency, climate change, bio-based products, toxic chemical releases and criteria pollutants, among other areas. One of the strategy's toughest goals is expected to be making sure that DOD's funding policies "actively promote P2," he said. ".We still have problems with perception, that P2 projects are Class 3, nice but not necessary," he said, referring to the class of projects deemed the least priority for environmental funding. The proposal introduces a new objective under the sixth goal, aimed at supporting the White House, State Department and EPA in U.S. negotiations in climate change talks. DOD also wants to identify the military's contribution to greenhouse gas emissions, including any offsets through sinks — geographical areas in which the global warmer carbon dioxide is absorbed through trees and plants, he said. DOD is the federal government's greatest generator of greenhouse gases, he noted.

# REGION 4 SPECIFICS

## Region 4 Department of Defense Pollution Prevention Partnership Update

By Ed Engbert, SREO

As mentioned in our last edition of the SREO Monitor, a new regional P2 partnership has been formed through an EPA grant under the P2Rx program. The Georgia Pollution Prevention Assistance Division (P2AD) was awarded the grant and will operate with supporting subcontracts to North Carolina and South Carolina. Under the grant, GA P2AD will also be responsible for the coordination of a best management practices guide on priority environmental areas. South Carolina will coordinate and help develop the Region 4 DOD P2 Partnership in a format similar to the state partnerships and the overall partnership will include periodic meetings, conference calls and presentations.

The first official gathering of the new Region 4 P2 Partnership occurred last December in conjunction with the Tri-Service P2 Conference in San Antonio, Texas. There were approximately 40 people overall in attendance including Ms. Maureen Sullivan, DUSD(ES). She commented on how great it was that Region IV was taking the initiative to form a Regional P2 Partnership. LeAnn Herren, University of South Carolina, facilitated the meeting. Bob Donaghue, GA P2AD, gave an overview of the grant from EPA and the concept of the Regional Partnership. Rusty Harris-Bishop, NC DENR, talked about the Waste Reduction Recycling Center's web site (http://wrrc.p2pays.org/default.htm) and regional P2 list serve. Ms. Herren, USC, will act as the Regional Coordinator for the Partnership and will handle day-to-day business of the Partnership.

Follow-up discussions have led to the establishment of a steering committee with a structure that would include representatives as follows: a Regional Coordinator (Ms. Herren), an EPA Region 4 representative, DOD Service Regional Environmental Coordinators, and one representative from each partnership where the state person is a primary representative and a military person is an alternate representative. The 81st Army Reserve Regional Support Command will also participate on the steering committee.

The group conducted a brainstorming session on the mission of the Regional Partnership which concluded in the development of a list of possible mission activities. The Partnership agreed that the prepared list of ideas should be taken back to each of the state partnership's for further discussion and consideration. Ms. Herren also emphasized that in no uncertain terms would the Regional Partnership attempt to overshadow the mission and importance of the respective state partnerships. The Regional Partnership's primary mission would be to support the state partnerships. More details on the new partnership will be forthcoming.

During the conference, there was also training on the new national P2 Partnership webpage on the DOD DENIX site (http://www.denix.osd.mil/denix/State/Partnering/P2/p2.html). The training session provided a basic overview along with instructions on how to submit information to the site. The purpose of the website is to facilitate the exchange of ideas and lessons learned among the nation's various P2 partnerships. The DENIX webmaster has requested that each state P2 partnership nominate two individuals to serve as a point of contact (POC) in working with them on the DOD website. These POCs will serve as official transmitters of data to DENIX and will be instructed on procedures for submitting files and data to their respective state sections. The process is expected to be fairly straightforward and easy to follow. Mr. Steve Sands can be contacted with your team nominations at ssand@osiris.cso.uiuc.edu, (703) 256-6661. Everyone who has not already obtained a password for DENIX should get one so that you can take advantage of the new website. If you don't already have a password, please visit http://www.denix.osd.mil/denix/register.html to get a password.

*(Continued from page 1-6th Annual Legacy Forum )*

Mr. Eric Lausten from the Office of Congresswoman McKinney sounded a special note requesting that environmental errors of the past be more urgently resolved and that new ones not be created. Mr. Mike West, consultant, professor and journal editor and former staff officer to the House Armed Services Committee, challenged the non-military community to be advocates for resourcing defense community environmental programs, which have begun to slip from congressional interest.

The Honorable Randall Yim, Deputy Under Secretary Of Defense (Installations) spoke of the many years of successful energy, natural resource legacy and environmental management programs. However, he stressed that the defense community will continue its intense activities to ensure that essential military requirements are conducted with minimum reasonable environmental impacts. He listed the many special challenges presented by

- Asymmetric threats
- Non-traditional targets (e.g., computer systems)
- Domestic, as well as international, threats

Mr. Yim emphasized the need for much greater integration between the defense sector, local communities and private enterprise to anticipate and snatch opportunities for meeting those challenges effectively and with due attention to environmental and energy stewardship. He called for greater risk taking.


*The Honorable Bill Richardson, US Secretary of Energy, believes DOE it is fighting shoulder to shoulder with Global Green by dismantling weapons and cleaning sites.*

COL Kurt Kratz, Special Assistant to the Deputy Under Secretary of Defense for Environmental Security, stressed opportunities to use environmental security as a tool for peaceful engagement between nations. He also outlined research directed to reducing the direct physical impacts of military materiel and indirect impacts of energy consumption in military operations. These included trends away from tracked vehicles, alternatives to carbon-based vehicle fuels, directed-energy weapons and space-based lasers for missile destruction.

Promising strong efforts to fulfill novel energy generation and conservation programs, the Honorable Bill Richardson, US Secretary of Energy, prevailed over emergencies and airline delays to attend the Forum. He said DOE believes it is fighting shoulder to shoulder with Global Green by dismantling weapons and cleaning sites. Two prime goals are reducing further wastes and promoting pollution prevention. Mr. Richardson offered a fundamental philosophy: we need to educate ourselves in human values, build up our people, not just destroy arms.

The defense community in the Southeast was well represented. LTG David Poythress, Adjutant General of the Georgia National Guard, opened the first plenary session with *Changing Military Roles and Relations*. The General described the growing reversion to pre-WWII reliance on National Guard and Reserves to perform military missions and the relevance of these inherently "local" organizations and outlooks to DoD environmental issue management at home and abroad. Other Army organizations providing speakers and session chairs included: Army Environmental Center, DoD Southern Regional Environmental Office, Chem-Demil Program, Corps of Engineers, Fort Benning, Fort Bragg and HQ Forces Command. The Army Environmental Policy Institute provided several speakers and session facilitators, as well as a wide variety of planning, administrative and operating support.

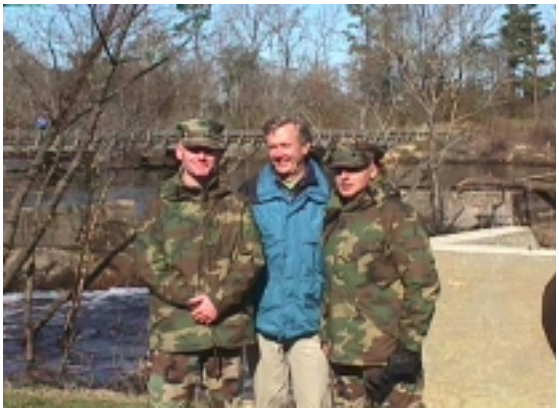
# SUCCESS STORIES

## Wilmington District Participates in Precedent-Setting Dam Removal Project in North Carolina

By Dennis Barnett, USACE SAD

On December 1, 1999 the third dam removal project in North Carolina in two years purely for environmental restoration purposes commenced on the Little River, about 40 miles east of Raleigh. The project is the result of the efforts of a host of partners working together under the auspices of the Coastal America Partnership. Coastal America brings together all Federal agencies who have responsibilities in coastal watersheds to collaborate and leverage their resources and expertise, along with state and local partners, to protect and restore these ecosystems.

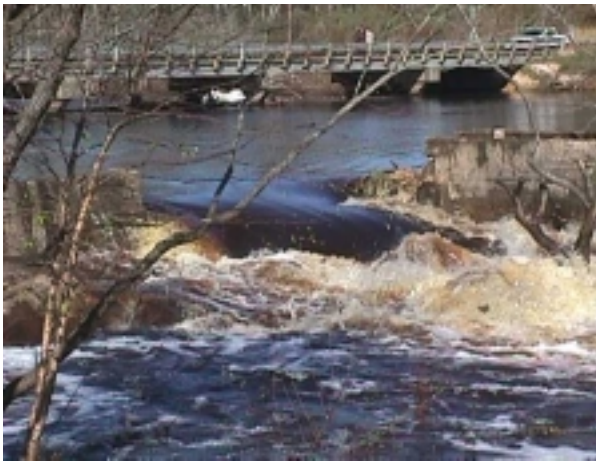
The 71-year old Rains Mill Dam near Princeton, NC, no longer served any useful purpose. Significant environmental benefits would result from the removal of the 250-foot-long, 12-foot-high dam. Access would be restored to about 50 miles of spawning and rearing habitat for seven species of anadromous fish, and habitat increased for the endangered dwarf wedge mussel and the endangered Tar River spiny mussel.



*Bruce Babbitt, Secretary of Interior, congratulates combat engineers from the Marine Corps Air Station (MCAS), Cherry Point, NC .*

Coastal America partners worked for over a year to plan and implement the removal. The Federal partners include US Fish and Wildlife Service, US Marine Corps, US Army Corps of Engineers (Wilmington District), and a number of others which have been peripherally involved. The state of North Carolina Department of Environment and Natural Resources (Division of Water Resources) led the overall team effort, and several private interests were involved, including the National Fish and Wildlife Foundation and the owners of the dam and adjacent lands (descendents of the original builder/owner).

Combat engineers from the Marine Corps Air Station (MCAS), Cherry Point, NC used C-4 plastic explosives to reduce the concrete dam to rubble as a training exercise while providing collateral environmental benefits. The blasting took about three days to complete. This is the first time that military units have participated in an environmental restoration project of this type. A contractor to the state of North Carolina subsequently removed the rubble and restored the site.



*On December 1, the Marine Corps blasted the first section of the Rains Mill dam.*

The US Army Corps of Engineers, Wilmington District, provided environmental planning assistance and developed the necessary environmental documentation to support the project by using its Section 22 (Planning Assistance to States) Program. The District staff provided valuable advice and support to the other partners as the plan evolved.

On December 1, the Marine Corps blasted the first section of the dam. A dedication ceremony preceded the blast. Participants included the Secretary of Interior, Assistant Secretary of the Navy, Secretary of NC Department of Environment and Natural Resources, high-ranking USMC officers, Wilmington District Engineer, many agency and media representatives, and members of the public.

# Erosion Control at Fort Jackson

By Doyle Allen, Ft. Jackson Soil Conservationist

Fort Jackson has been in the erosion business for 82 years: the first 75 years they created it and the past seven years they have remediated it. In 1917, when Camp Jackson began training troops for World War I, little was known about soil erosion, what caused it, how to prevent it, or that it was even a problem. But with more and more emphasis on environmental stewardship, Ft. Jackson has begun to make up for lost time.

In 1991, an Interagency Agreement with the Natural Resources Conservation Service (NRCS) was initiated. The first order of business was to survey the installation and document sites with excessive erosion problems. The next year, conservation designs were prepared with the first construction project happening in the spring of 1993.

NRCS has been the key to Ft. Jackson's successful erosion control program. They provide solid engineering, agronomic, and contracting expertise. A NRCS engineering technician is stationed at Fort Jackson full time, designing solutions that will effectively control the erosion. A contract is then awarded to a private contractor to "turn dirt". NRCS is on-site daily to inspect.

So what do you do to control erosion? Best Management Practices, or BMPs are installed to control stormwater runoff and to put a cover on the ground. This cover could be crushed rock to harden the surface , vegetation to provide a permanent agronomic cover, or simply wood chips or pine straw. Terraces are used to break up the length of slope and divert runoff water to a stable outlet. Waterways are constructed and vegetated to convey water off the immediate site. Detention ponds and sediment traps are used to decrease the velocity of the stormwater while at the same time allowing sediments to drop out of solution before the water leaves the site. Ft. Jackson also uses some of the new technologies, such as erosion control blankets, bonded fiber matrix mulches, and cellular concrete mats to accomplish our conservation more effectively.

*This site is a 15 acre bare area that had been denuded for many years*

*Through a series of terraces and detention ponds, stormwater was controlled. A good stand of permanent vegetation allowed for final stabilization of the site.*

To date, Ft. Jackson has remediated 63 sites, vegetating 208 acres of critically eroding land, constructing 4 miles of terraces, vegetating 9 miles of waterways, installing 22,000 tons of rock and gravel, putting down 70,000 square yards of erosion control blanket, and building 27 detention ponds/sediment traps. Some of the most critical sites have been successfully remediated but much more work remains.

*This is a typical road on Ft. Jackson. Sediment was leaving the road and entering an adjacent pond and wetland.*

*Road ditches were graded and vegetated to allow for good drainage. Water bars were constructed on the road to divert runoff water into ditches. Crushed rock was added to harden the road. Road banks were established to permanent vegetation.*

# Ft. Gordon Aids in Preserving Endangered Species

By Pfc. Frank Magni, Ft. Gordon Staff Writer

Fort Gordon biologist and natural resource specialists in cooperation with the Georgia Department of Natural Resources released 3,000 robust redhorse suckers into a lake on Fort Gordon Nov. 17. This will assist in the preservation of this fish that is being considered for the federal endangered-species list.

The Georgia Department of Natural Resources asked for Fort Gordon's assistance in the conservation effort for this fish that is native to the central Georgia area. With a habitat that spans from the Altamaha River in south central Georgia to the Pee Dee River in North and South Carolina area, Fort Gordon is providing a safe refuge for the declining fish.

"The fish was thought to be extinct in Georgia but was rediscovered in 1991," said Rob Drumm, natural resource specialist.

The bottom-feeding sucker feeds on mollusk and crayfish on the bottom of the riverbed. Known in juvenile stages to have a bright red stripe on the tail, the sucker is not considered to be a game fish. It is possible for it to live up to 20-25 years and obtain a weight of 15-20 pounds.

Its numbers were reduced in this century because of poor urbanization, forestry and agricultural practices. With large amounts of silt being introduced to the river the sucker found it difficult to find rock and gravel beds to lay eggs.

The sucker is also threatened by the introduction of the flat-head catfish. The catfish, native to rivers that drain into the Gulf of Mexico, became a predator to many fish in the Atlantic drainage region after it was introduced into these rivers.


*Fort Gordon natural resource specialists in cooperation with the Georgia Department of Natural Resources released 3,000 robust redhorse suckers into a lake on Fort Gordon Nov. 17.*

But with the implementation of acts such as the Clean Water Act and improved agricultural and soil conservation programs the suckers have a better chance for survival in the wild.

The Robust Redhorse Sucker Conservation Committee was formed by several different State departments of natural resources and power companies; their goal of restoring populations of the suckers back to historic levels involves a pond on Fort Gordon.

"The committee asked for a pond to establish a refugial population," said Steve Camp, Fort Gordon wildlife biologist.

Setting aside a 1.5 acre pond, Fort Gordon Biologists prepared the pond by removing all the predators that would threaten the sucker's existence.

" The pond is in a limited access area and was not used for recreational fishing, therefore, it will not interfere with our other fishery programs," said Camp.

The fish will be given a few years to grow and develop before the State uses them to restock rivers, or as brood stock to produce more fish. "With the population of robust redhorse suckers here on Fort Gordon the fish always has a chance at survival, regardless of what happens in the rivers," said Drumm. The suckers are equipped with a tag to help environmental experts track the fish's migration and survival rate in the future.

"The project is a win-win situation for everybody. Fort Gordon helps the endangered species population and the fish have a safe home to stay," said Camp.

"People often ask why we want to protect these fish, wildlife or plant species. These species are good indicators of the condition of the environment. If a species starts to decline, this indicates there is something wrong in the environment. It gives biologists a place to start when trying to maintain or improve ecosystems", said Camp.

# Ft. Gordon Receives Grant to Restore Ecosystem

Spc. Sharron L. Grinder, Ft. Gordon Staff Writer

Fort Gordon recently received a Department of Defense Grant titled "Sustaining our Forests, Preserving our Future," for ecosystem restoration. "A group of volunteers collected wiregrass seeds Saturday," said Natural Resources Specialist David Schulte who is with the Fort Gordon Environmental Office.

Schulte said wiregrass restoration is a necessity. "Long-leaf pine, with a wiregrass understory is the native forest to our area. When Europeans settled this area long-leaf pine covered from 60-90 million acres in the Southeastern United States. Today there are less than 4 million acres remaining and less than one percent old growth long-leaf pine remaining," Schulte said.

The project, which took only two months to get approved, is a joint effort with the Fort Gordon Environmental Office, the US Forest Service, and Clemson University. Schulte said several Boy Scouts and students from the Non-commissioned Officers Academy have volunteered to gather and collect seeds. Most of the seeds were replanted in January on sites without wiregrass. Schulte said his goal is to cover five acres. "The native herbaceous plants are critically important in maintaining the long-leaf forest due to their ability to carry the fires necessary for the long-leaf pine life cycle and to provide food and cover to native wildlife," Schulte said.

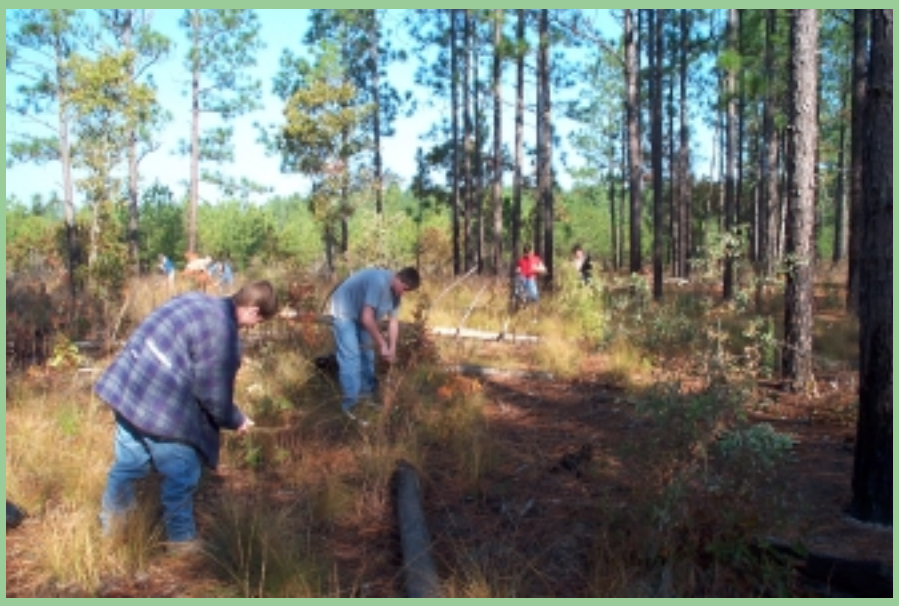
Long leaf pine is native to the states of Georgia, North and South Carolina, Florida, and Virginia and provide a natural food source and a natural habitat for rare or endangered species such as the red-cockaded woodpecker, the gopher tortoise, Bachman's sparrow, the gopher frog, several snake species and a number of other rare or endangered species. "There are now five or six red-cockaded woodpeckers on Fort Gordon," Schulte said.

Schulte noted that in the 1940s and 50s the US Forest Service put intense efforts into suppressing forest fires but, "Controlled burning can be good because it helps maintain fire-adapted ecosystems. Some plants can only produce seeds after being burned so controlled burning is in fact extremely important," he said.

"Fort Gordon is unique in using a grant to implement this concept," he said. Schulte made the proposal and has done two similar projects as an intern at two other Army installations; and has also completed a beach restoration project.

Because of another grant, Schulte helped Fort Gordon to procure, "Streamside Forests: Lifelines to Clean Water," In December, Schulte and children from several local schools, soldiers, and other volunteers planted trees to help restore areas that have been hit by erosion. "By planting trees in areas such as stream banks or stream drainages, the trees will help filter out excess nutrients before they enter the local waterways," he said.

"I'm really excited about this project because, as a community, we get to restore part of the Fort Gordon ecosystem. Maybe this will encourage someone in the local community to plant native trees in their yard," Schulte concluded. He also said members of the Fort Gordon community can help protect the ecosystem by limiting any off road driving, especially when the ground is wet. The soil disturbance created by off road driving, especially under wet soil conditions, can take years to recover.



*A group of volunteers collects wiregrass seeds at Ft. Gordon.*

# Coastal America Partnership Designates 10th Coastal Ecosystem Learning Center

By Dennis Barnett, USACE SAD

On November 16, 1999 the Coastal America Partnership designated the International Game Fish Association's (IGFA) Fishing Hall of Fame and Museum as its 10th Coastal Ecosystem Learning Center (CELC). This was the first designation for Coastal America's Southeast Regional Implementation Team and first CELC along the South Atlantic Coast. The facility is located on I-95 in Dania Beach, Florida, near Fort Lauderdale.

The impressive IGFA facility contains exhibits that tell of the history of sport fishing, document world record catches for all types of sport fish, teach youngsters and adults about the sport of fishing, and promote a strong conservation ethic for fish and their habitats. The facility has outstanding educational facilities, including classrooms, laboratories, and a constructed wetland used for instruction purposes.

Mr. Michael Davis, Deputy Assistant Secretary of the Army for Civil Works, represented the Coastal America Principals Group and presided at the designation ceremony. Mr. Davis signed a Memorandum of Understanding on behalf of the Coastal America Partnership with Mr. Michael Leech, President of the IGFA, and with Mr. David Paltzik, Executive Director of the IGFA Fishing Hall of Fame and Museum. He also presented a large Learning Center plaque to Mr. Leech and Mr. Paltzik for mounting at the entrance to the facility.

Top regional leaders from twelve different Federal agencies followed Mr. Davis and gifts and/or commitments to the IGFA facility to support and enhance their educational programs. Gifts and commitments included artwork and visual aids, educational publications, technical documents, and various forms of technical assistance.

The ceremony was well attended. Attendees included Federal, state, and local government representatives; IGFA staff and numerous volunteers; local citizens; media representatives; and several classes of middle school students who had been scheduled to be in the facility on that day.


# ENVIRONMENTAL MONITOR

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